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(54) Title of invention

Improvements in or relating to a dispenser

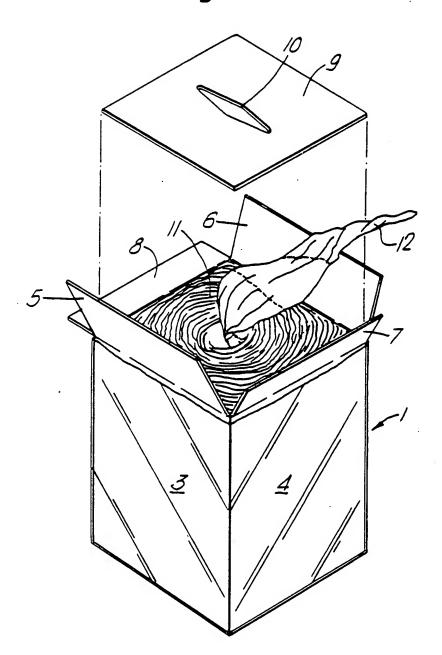
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Fig.2.



"Improvements in or relating to a dispenser"

THE PRESENT INVENTION relates to a dispenser, and more particularly to a dispenser for dispensing lengths of an elongate web of material, such as porous paper or the like which may, if desired, be perforated at regular intervals along its length.

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Porous absorbent paper is utilised for many purposes, such as hand towels, or for cleaning dirty - such as ally or greasy - hands, or for cleaning machinery, or objects, or for mopping up sillages etc., especially in a factory environment. It is usual for such porous paper to be provided in the form of a long web, which may conveniently be in the form of a roll, and the porous paper is then dispensed from a dispensing device which contains the roll. The dispensing device may be provided with a blade or similar cutting device adjacent the point at which the web leaves the dispensing device, so that the web can be cut to desired lengths.

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The present invention seeks to provide a new dispenser for webs of the type generally described above.

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According to this invention there is provided a dispenser for dispensing an elongate web, said dispenser comprising a carton containing the elongate web, there being a sheet connected to flaps forming the closure of the carton and defining an aperture through which a free end portion of the elongate web passes, said aperture having a relatively broad portion through which the web may be freely withdrawn from the dispenser, and a constricted portion which will grip the web to enable a portion of the web that has passed through the aperture to be separated from the remainder of the web.

FIGURE 2 is an exploded view of the dispenser shown in Figure 1;

FIGURE 3 is a perspective view of two dispensers according to Figure 1 packaged together for transportation, and

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FIGURES 4A to 4D are plan views of cardboard sheets having differently shaped apertures therein for use in different embodiments of the invention.

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A dispenser in accordance with the present invention 1 comprises a generally rectangular cardboard carton 2 having four vertical side walls, only two of which 3, 4 are visible in Figures 1 and 2. Pivotally connected to the uppermost edge of each side wall is a respective flap, there being a relatively large flap 5 on the side wall 3, and a corresponding large flap 6 on the side wall opposed to the side wall 3, and there being a relatively small flap 7 on the side wall which is opposed to the side wall 4. The flaps cooperate to form a closure for the carton as can be seen in Figure 1, and as will be described hereinafter.

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The presently described dispenser in accordance with the invention also includes a further sheet of cardboard 9 in which there is formed a central aperture 10 which, in this embodiment, is of parallelogram or of generally "diamond" shape. The aperture 10 thus has a relatively broad central region and two narrower converging terminal regions. The function of this apertured sheet will become apparent hereinafter.

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The carton 2 contains a roll of web 11 which is porous and which is perforated at regular intervals. The preferred web is a multi-purpose industrial wiper which will absorb water, all common solvents, and will collect and hold dusts and powders. The preferred web is formed from two-ply cellulose wet, semi or dry crepe tissue, although a multi- or a single-ply web may be used. The weight of the web is preferably between 10 and 100 gms per square metre. The roll of web has a large centre opening, and the web is dispensed from this central opening thus ensuring that the web is not unduly twisted as it is dispensed.

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It is to be appreciated that this feature is of some commercial importance, since industrial concerns that utilise such webs are used to being provided with free permanent dispensers in which the webs can be located. However, in the above described arrangement there is no need to provide such a permanent dispenser, since the carton acts as a dispenser and the shrink wrapping material protects the carton from any contamination on the floor in the region where the dispenser is located.

Whilst the invention has been described with reference to one preferred embodiment it is to be appreciated that many modifications or alterations may be made. In particular, whilst the invention has been described with reference to an embodiment in which the aperture through which the web is dispensed is of parallelogram or "diamond" shape, the aperture may be of any convenient shape, provided that the aperture defines a relatively broad portion through which the web may be freely withdrawn from the dispenser, and a narrow constricted portion which is of such a size that the web will be engaged by the side walls of the aperture to enable a portion of the web to be separated from the remainder of the web.

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Figures 4A to 4D show various cardboard sheets that can be used instead of the sheet 9 in different embodiments of the invention. The sheet 9A of Figure 4A has a pear shaped hole 10A, and the sheet 9B of Figure 4B has a cruciform hole 10B, the arms of the cross having tapering terminal regions. The sheet 9C of Figure 4C has a generally elliptical aperture 10C, the two sides of the ellipse being defined by two arcs. The sheet 9D of Figure 40 has a generally star shaped aperture 10D, each arm of the star tapering to a point. Each of the illustrated apertures thus has a relatively broad central portion through which the web may be freely withdrawn from the dispenser, and at least one tapering constricted portion, the side edges of which will grip the web to enable a portion of the web that has passed through the aperture to be separated from the remainder of the web.

Also it is to be appreciated that whilst the invention has been described with reference to an embodiment in which the web within the dispenser is in the form of a roll, the web may alternatively be in the form of a pre-folded or layered endless web.

- 9. A dispenser according to any one of the preceding claims wherein the web is porous.
- 10. A dispenser according to claim 9, wherein the web is 2-ply cellulose crepe.
- 11. A dispenser according to claim 9 wherein the web is single ply cellulose crepe.
- 10 12. A dispenser according to any one of the preceding claims wherein the web is perforated at locations equi-spaced along the length of the web.
- 13. A dispenser according to any one of the preceding claims, together with a similar dispenser, the dispensers being located with the said apertures
 thereof abutting one another, the dispensers being connected together by an external wrapping of plastics material.
 - 14. A dispenser according to claim 13, wherein said plastics material comprises a shrink-wrapping material.
 - 15. A dispenser substantially as herein described with reference to and as shown in Figures 1 and 2 of the accompanying drawings.
- 16. A dispenser substantially as herein described with reference to and as shown in Figures 1 and 2, as modified by Figure 4A.

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- 17. A dispenser substantially as herein described with reference to and as snown in Figures 1 and 2, as modified by Figure 4B of the accopanying drawings.
- 18. A dispenser substantially as herein described with reference to and as shown in Figures 1 and 2, as modified by Figure 4C of the accompanying drawings.
- 19. A dispenser substantially as herein described with reference to and as shown in Figures 1 and 2, as modified by Flgure 4D of the accompanying drawings.

20. Two dispensers substantially described with reference to and as shown in Figure 3 of the accompanying drawings.